



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/594,255	08/18/2008	Keiichi Kitahara	5048/76889	1870
23432	7590	03/14/2011		
COOPER & DUNHAM, LLP 30 Rockefeller Plaza 20th Floor NEW YORK, NY 10112			EXAMINER ROBINSON, ELIZABETH A	
			ART UNIT	PAPER NUMBER
			1787	
			MAIL DATE	DELIVERY MODE
			03/14/2011 PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/594,255

Applicant(s)

KITAHARA ET AL.

Examiner

Elizabeth Robinson

Art Unit

1787

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 8, 11 and 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 8, 11 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-940)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 1-28-2011
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 8, 11 and 14 are currently pending.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 18, 2010 has been entered.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 8, 11 and 14 are currently pending.

Information Disclosure Statement

The information disclosure statement filed January 28, 2011 was considered. However, the Japanese Office Actions were not considered, since they were only presented in Japanese.

Claim Rejections - 35 USC § 112

Claims 1, 8, 11 and 14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1 amends the claimed thickness of the anti-ultraviolet layer as being 66.6 to 80% of the mean particle diameter. The support for this amendment was from the example compositions. However, the size range for the examples is for the specific resins, ultraviolet absorbers, microparticles and organopolysiloxane of the examples and this does not support the more broadly claimed composition of claim 1.

All other claims depend from claim 1 and thus, also fail to comply with the written description requirement

Claims 1, 8, 11 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, this claim contains the limitation that the content of the ultraviolet absorber is 5 to 15 parts by weight based on 100 parts by weight of the ionizing radiation curable resin composition in the anti-ultraviolet layer, but it is unclear if this weight percentage is for the cured or uncured layer.

All other claims depend from claim 1 and thus, are also rendered indefinite.

Claim Rejections - 35 USC § 103

Claims 1, 8, 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Onozawa et al. (US 6,103,370) in view of Nakamura et al. (US 2002/0085284) and in view of the Ciba® TINUVIN® 328 or Ciba® CHIMASSORB® 81 product literature and the Ciba® TINUVIN® 1130 product literature.

Regarding claim 1, Onozawa (Column 1, lines 43-50) teaches a hard coat sheet comprising a base sheet and a coat layer. The base sheet (Column 2, lines 8-12) can be a plastic film. The film can be a glare preventing film for a computer display (Column 1, lines 6-14). The coat layer can comprise an ultraviolet absorbent (Column 3, lines 44-50). The resin of the coat layer can be cured by electron beam or ultraviolet radiation (ionizing radiation) (Column 2, lines 63-66). The coat layer can also comprise a filler, such as silica or acrylic powder, to provide an anti-glare property (Column 3, lines 19-28). The filler is present at 0.5 to 50 parts per 100 parts by weight of the acrylate resin. Since the acrylate resin can be the primary component of the coating (Example 1), the weight percentage limitation for the filler meets the limitation for the microparticles. Since, as shown in the Examples, the solvents, which would be removed during curing, are listed separately from the resin, the weight ratios would be those of the cured composition.

Onozawa does not teach the size or preferred shape of the filler.

Nakamura (Paragraph 9) teaches an anti-glare film for use on an image display device. The binder of the anti-glare layer is formed from the ionizing radiation curable resins (Paragraph 43), including the same types of resins (Paragraph 42) as in

Onozawa. The matting agent particles for the anti-glare layer include silica particles and cross-linked acrylic particles (Paragraph 59). The preferred shape of the matting agent is spherical, in order to obtain a consistent anti-glare property (Paragraph 60). The size of the matting particles is from 1 to 5 microns (Paragraph 57), in order to have a sufficient degree of anti-glare behavior, while still maintaining a sharp transmission.

It would be obvious to one of ordinary skill in the art to use the size and shape anti-glare particles of Nakamura, as the anti-glare particles of Onozawa, in order to form an anti-glare layer having a consistent anti-glare property with a sufficient degree of anti-glare behavior, while still maintaining a sharp transmission.

Onozawa (Column 3, lines 44-50) teaches that ultraviolet absorbers can be added to the coat layer and uses one example absorber, TINUVIN® 1130 and lower concentrations of absorber in the examples, but does not preclude using a different ultraviolet absorber or different loadings.

As shown in the TINUVIN® 1130 product literature, TINUVIN® 1130 has a molecular weight of 637.

The TINUVIN® 328 product literature shows that TINUVIN® 328 has a molecular weight of 351.5. The Ciba® CHIMASSORB® 81 product literature shows that CHIMASSORB® 81 has a molecular weight of 326.4. As shown by the transmittance spectrum of the ultraviolet absorbers, TINUVIN® 328 and CHIMASSORB® 81 have a lower transmittance in the ultraviolet spectrum than does TINUVIN® 1130 for the same loading. Thus, TINUVIN® 328 or CHIMASSORB® 81 will be a more effective ultraviolet absorber than TINUVIN® 1130. The second page of the TINUVIN® 328 product

literature and the second page of the CHIMASSORB® 81 product literature teaches that the amount of TINUVIN® 328 or CHIMASSORB® 81 required for optimum performance should be determined in trials covering a concentration range. Thus, the amount of absorber would be a results effective variable that would determine the degree of ultraviolet absorption of the coat layer.

It would be obvious to one of ordinary skill in the art to use TINUVIN® 328 or CHIMASSORB® 81 as the ultraviolet absorber for the sheet of Onozawa, in order to have a more effective ultraviolet absorber than the example absorber and it would be obvious to one of ordinary skill in the art to vary the amount of absorber of Onozawa to amounts, including those presently claimed, in order to obtain a desired degree of ultraviolet absorption as is taught by the TINUVIN® 328 or CHIMASSORB® 81 product literature.

Onozawa (Column 2, lines 35-62) further teaches that the resin of the coat layer can also comprise 0.1 to 100 parts by weight of an organopolysiloxane based on 100 parts by weight of the acrylate resin. Since, as shown in the Examples, the solvents which would be removed during curing are listed separately from the resin, the weight ratios would be those of the cured composition. Onozawa (Column 3, lines 61-62) teaches that the coat layer preferably has a thickness from 1 to 10 microns. Since this thickness includes thicknesses smaller than the particle size, the limitation is met. Further, Nakamura (Paragraphs 48 and 49) teaches that the desired internal scattering of the anti-glare layer can be imparted by having the matting particles size larger than the layer thickness.

Regarding claim 8, Ciba® CHIMASSORB® 81 is a benzophenone based ultraviolet absorber.

Regarding claim 11, as stated above, the microparticles can be silica particles.

Regarding claim 14, Ciba® TINUVIN® 328 is a benzotriazole based ultraviolet absorber.

Response to Arguments

Applicant's arguments filed October 18, 2010 have been fully considered but they are not persuasive.

Applicant argues that since the Paragraph 38 teaches that a "coating solution ... was applied, dried, and irradiated with ultraviolet rays ... to form an anti-ultraviolet layer," that this distinguishes between "coating solution," which is the material before UV curing, and "anti-ultraviolet layer" which is the layer formed by curing. However, Paragraph 38 finishes with "...having a thickness of 4 μm ...". Thus, the curing is taught to form a layer with a particular thickness, not that it defines that the anti-ultraviolet layer means only the cured layer. The Examiner maintains that before or after curing the layer is still the anti-ultraviolet layer and that this does not support that the stated weight ratio is for the cured layer.

Applicant argues that one would not amend Onozawa et al. (US 6,103,370) to form a layer that prevents tint changes, since Onozawa is not concerned with tint changes and that Onozawa does not teach ultraviolet absorber with formula weight as claimed. However, the motivation to amend Onozawa was to form an anti-glare layer

having a consistent anti-glare property with a sufficient degree of anti-glare behavior, while still maintaining a sharp transmission and to use a more effective ultraviolet absorber than the example absorber.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., preventing tint change) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Due to the claim amendments incorporating the limitations of claim 2 into claim 1, the rejections over *McMan et al.* (US 2004/0241469) in view of *Onozawa et al.* (US 6,103,370) and *Nakamura et al.* (US 2002/0085284) from the June 23, 2010 Office Action are withdrawn and thus, the arguments directed to that combination of references is moot.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Robinson whose telephone number is (571)272-7129. The examiner can normally be reached on Monday- Friday 8 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on 571-272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/E. R./
Elizabeth Robinson
Examiner, Art Unit 1787

March 7, 2011

/Callie E. Shosho/
Supervisory Patent Examiner, Art Unit 1787